



West Virginia Agricultural and Forestry Experiment
Station Bulletins

Davis College of Agriculture, Natural Resources
And Design

1-1-1914

Agricultural Production in West Virginia

O. M. Johnson

Follow this and additional works at: https://researchrepository.wvu.edu/wv_agricultural_and_forestry_experiment_station_bulletins

Digital Commons Citation

Johnson, O. M., "Agricultural Production in West Virginia" (1914). *West Virginia Agricultural and Forestry Experiment Station Bulletins*. 144.
https://researchrepository.wvu.edu/wv_agricultural_and_forestry_experiment_station_bulletins/144

This Bulletin is brought to you for free and open access by the Davis College of Agriculture, Natural Resources And Design at The Research Repository @ WVU. It has been accepted for inclusion in West Virginia Agricultural and Forestry Experiment Station Bulletins by an authorized administrator of The Research Repository @ WVU. For more information, please contact ian.harmon@mail.wvu.edu.

West Virginia University Libraries



3 0802 100896117 3

**West Virginia University
Agricultural Experiment Station**

MORGANTOWN, W. VA.

DEPARTMENT OF FARM MANAGEMENT

**AGRICULTURAL PRODUCTION
IN
WEST VIRGINIA**

BY
O. M. JOHNSON

The Bulletins and Reports of this Station will be mailed free to any citizen of West Virginia upon written application. Address Director of Agricultural Experiment Station, Morgantown, W. Va.

THE STATE OF WEST VIRGINIA

Educational Institutions

THE STATE BOARD OF CONTROL

JAMES S. LAKIN, President.....Charleston, W. Va.
W. M. O. DAWSON, Treasurer.....Charleston, W. Va.
J. M. WILLIAMSON.....Charleston, W. Va.

The State Board of Control has the direction of the financial and business affairs of the state educational institutions.

THE STATE BOARD OF REGENTS

M. P. SHAWKEY, President.....Charleston, W. Va.
State Superintendent of Schools.

GEORGE S. LAIDLEY.....Charleston, W. Va.
G. A. NORTHCOTT.....Huntington, W. Va.
EARL W. OGELBAY.....Wheeling, W. Va.
J. B. FINLEY.....Parkersburg, W. Va.

The State Board of Regents has charge of all matters of a purely scholastic nature concerning the state educational institutions.

The West Virginia University

THOMAS EDWARD HODGES, LL.D.,.....President

Agricultural Experiment Station Staff

E. Dwight Sanderson, B.S. Agr.,.....Director
Bert H. Hite, M.S.,.....Vice-Director and Chemist
W. E. Rumsey, B.S. Agr.,.....State Entomologist
N. J. Giddings, M.S.,.....Plant Pathologist
Horace Atwood, M.S. Agr.,.....Poultryman
W. H. Alderman, B.S. Agr.,.....Horticulturist
I. S. Cook Jr., B.S. Agr.,.....Agronomist
L. M. Peairs, M.S.,.....Research Entomologist
*O. M. Johnson, B.S. Agr.,.....Farm Management
Paul B. Bennetch, B.S. Agr.,.....Dairy Husbandry
C. A. Lueder, D.V.M.,.....Veterinary Science
†L. I. Knight, Ph.D.,.....Plant Physiologist
A. L. Dacy, B.Sc.,.....Associate Horticulturist
Frank B. Kunst, A.B.,.....Assistant Chemist
Charles E. Weakley Jr.,.....Assistant Chemist
J. H. Berghuis-Krak, B.Sc.,.....Assistant Chemist
Hubert Hill, B.S., M.S.,.....Assistant Chemist
Anthony Berg, B.S.,.....Assistant Plant Pathologist
E. C. Auchter, B.S. Agr.,.....Assistant Horticulturist
L. F. Sutton, B.S., B.S. Agr.,.....Assistant Horticulturist
R. R. Jeffries, B.S. Agr.,.....Assistant Horticulturist
W. B. Kemp, B.S. Agr.,.....Assistant Agronomist
Henry Dorsey.....Assistant Agronomist
E. L. Andrews, B.S. Agr.,.....Assistant in Poultry Husbandry
*C. H. Scherffius,.....In Charge of Tobacco Experiments
O. M. Kile, B.S. Agr.,.....Editor
W. J. White,.....Bookkeeper
M. A. Stewart,.....Librarian

*In co-operation with U. S. Department of Agriculture.

†In co-operation with the University of Chicago.

Agricultural Production in West Virginia

O. M. JOHNSON.

INTRODUCTION.

There is little doubt in the minds of most people, concerning the fundamental importance of agriculture, but accurate information concerning this industry is not always available. The census report for 1910 gives a large amount of statistics which form the basis for this bulletin. Additional estimates by the U. S. Department of Agriculture for subsequent years are given when they are significant.

The two main questions to be considered are:

1. What changes can be noted with reference to rural and urban population?
2. What is the present status of agricultural production?

RURAL AND URBAN POPULATION.

All persons living in towns having 2,500 or more inhabitants are classed as urban population, while those living elsewhere form the rural population. This is not accurate, since many of the smaller mining and manufacturing towns have a population distinctly urban and with only a small proportion interested in agriculture. The general conditions can be noted however, notwithstanding this inaccuracy.

The total population increased 27.4 per cent. in the decade 1900-1910. The rural population increased 20.9 per cent. while the urban made a gain of 66 per cent. Fifteen counties lost in rural population while eleven counties with no large cities or towns lost in total population.

There are in the state 180 magisterial districts having no incorporated towns. The population in these districts has increased 11.9 per cent., a little more than one half that given for the rural population as defined by the census. Of these districts, 96 have increased 27 per cent. in total population while 84 districts have decreased 18.8 per cent.

There is a general tendency toward concentration of people in towns and cities (many of which have grown rapidly during the past decade) while on the other hand, many of the rural districts are losing as is shown by these figures.

AVAILABLE LAND AND SIZE OF FARMS.

The total area of the state, 16,374,080 acres, has not changed materially since its foundation. The amount of land in farms has decreased in the decade 1900-1910.

Farm Land in West Virginia, 1870-1910.

| | 1870 | 1880 | 1890 | 1900 | 1910 |
|--------------------------------------|-----------|------------|------------|------------|------------|
| Total Land in Farms (Acres) | 8,528,394 | 10,193,119 | 10,321,326 | 10,654,513 | 10,026,442 |
| Per cent. of Land in Farms..... | 55.5 | 66.3 | 67.1 | 69.1 | 65.2 |
| Acres per Farm... | 214.4 | 162.6 | 161.8 | 114.7 | 103.7 |
| Acres Improved per Farm | 64.9 | 60.5 | 62.5 | 59.2 | 57.1 |
| Number of Farms. | 39,778 | 62,674 | 72,773 | 92,874 | 96,685 |

FARM OWNERSHIP.

A permanent agricultural population is desirable. For this reason statistics of tenancy and mortgages are of general interest in so far as they indicate any change in character of rural population.

Mortgages and Tenancy in West Virginia.

| | 1880 | 1890 | 1900 | 1910 |
|-----------------------------------|------|------|--------|--------|
| Per cent. of Tenants..... | 19.7 | 17.7 | 21.8 | 20.5 |
| Per cent. of Farms Mortgaged..... | | 13. | 14.1 | 12.6 |
| Average Debt per Farm..... | | | \$664 | \$710 |
| Average Value per Farm..... | | | \$2060 | \$2735 |

While there has been an increase in debt per farm, land has risen in value so that the owner has a larger equity than in 1900.

CAPITAL INVESTED IN AGRICULTURE AND OTHER INDUSTRIES.

The importance of an industry can be measured in part by the amount of capital employed. There has been a steady increase in the value of all farm property since the first census of 1870.

A comparison of agriculture with manufacturing and mining will show something of the relative importance of the industries.

Comparison of Capital Employed and Value of Product in Agriculture, Mining, and Manufacturing.

| | 1899 | 1909 |
|---|---------------|---------------|
| Value of All Farm Property..... | \$203,907,349 | \$314,738,540 |
| Value of Farm Products..... | 44,768,979 | 70,810,423 |
| Capitalization of Factories..... | 49,103,000 | 150,923,000 |
| Wage Earners in Factories..... | (no figures) | 71,463 |
| Value Added to Product by Manufacture.. | (no figures) | 69,072,000 |
| Capital Invested in Mining..... | (no figures) | 219,466,909 |
| Number of Wage Earners in Mining..... | (no figures) | 78,404 |
| Value of Mineral Products..... | \$48,362,664* | \$76,287,889 |

*1902.

THE "AVERAGE FARM" IN WEST VIRGINIA.

In any discussion of farming it is always the individual farmer who must be considered. The 1910 census shows the following about the average farm:

| | |
|---|-----------|
| Total Acreage | 103.7 |
| Acres Improved | 56.6 |
| Total Value All Property..... | \$3255.00 |
| Value Implements and Machinery..... | \$73.00 |
| Value All Live Stock..... | \$448.00 |
| Value Land per Acre..... | \$26.37 |
| Number Horses on Each Farm..... | 1.9 |
| Number Cattle of All Kinds on Each Farm.. | 6.5 |
| Sales Dairy Products..... | \$26.20 |
| Sales Live Stock..... | \$146.50 |
| Sales Poultry and Eggs..... | \$33.30 |
| Value Fruits per Farm..... | \$31.30 |
| Value Vegetables per Farm..... | \$46.70 |
| Value Potatoes per Farm..... | \$23.50 |
| Acres Corn per Farm..... | 7. |
| Acres Hay per Farm..... | 7.3 |
| Acres Other Cereals per Farm..... | 3.2 |
| Expended for Labor..... | \$41.70 |
| Expended for Fertilizer..... | \$5.50 |
| Expended for Feed..... | \$20.00 |

TOTAL AGRICULTURAL PRODUCTION.

Accurate statistics for total production are difficult to obtain because of duplication in estimates. The census for 1910 aimed to eliminate as much inaccuracy as possible. A comparison with previous reports will show the tendency toward increased total value of all products. This is due in a large measure to a rise in the market value of farm products rather than to larger production.

| Census year | Value of Agricultural Products |
|-------------|--------------------------------|
| 1870 | \$23,379,692 |
| 1880 | 19,360,049 |
| 1890 | 20,439,000 |
| 1900 | 44,768,979 |
| 1910 | 70,810,423 |

CROP PRODUCTION OF THE STATE.

The census returns show but little variation in yield per acre since 1880. Estimates by the U. S. Department of Agriculture for 1913 indicate a higher production per acre than the census report for 1909, except in the cases of tobacco and potatoes.

The acreage of corn and hay per farm has remained practically the same but an increased number of farms brings up the total area of these crops. Small grains are not grown in such large areas as formerly.

FRUIT AND VEGETABLE PRODUCTION.

The information concerning production of tree fruits is of little value because statistics are rarely gathered in an average year. The variation in yield does not give a correct idea as to the growth of the industry.

Figures 17-22 show fairly well the sections in which the greater part of the planting is being done.

It will be noted that fewer bearing trees are reported in 1910 than in 1900. No statement as to non-bearing trees in 1900 is given. The decrease in bearing trees may be due to cutting down old orchards.

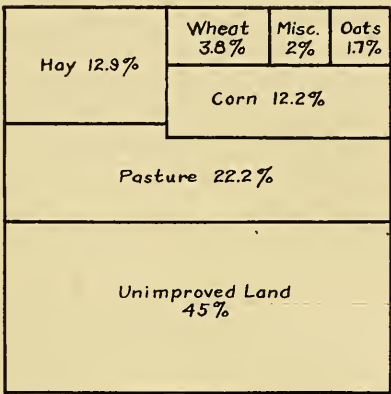
Vegetable and small fruit production is more nearly uniform but the greater part of these crops is for home use and the accuracy of the estimates may be questioned.

Fruit and Vegetables in West Virginia.

| | 1909 | 1899 |
|--|-------------|-------------|
| Value of Orchard Fruits..... | \$3,040,192 | \$2,155,509 |
| Value of Small Fruits..... | \$191,002 | \$149,391 |
| Apple Trees per Farm..... | 52 | 60 |
| Apple Trees Bearing..... | 4,570,948 | 5,441,112 |
| Peach Trees Bearing..... | 1,424,982 | 1,695,642 |
| Peach Trees per Farm..... | 15 | 17 |
| Total Value of Vegetables Other Than Potatoes..... | \$4,519,894 | \$1,697,028 |
| Value of Vegetables Other Than Potatoes, per Farm | \$46 | \$17 |
| Value of Small Fruits, per Farm..... | \$20 | \$16 |

Crops on Average W. Va. Farm.

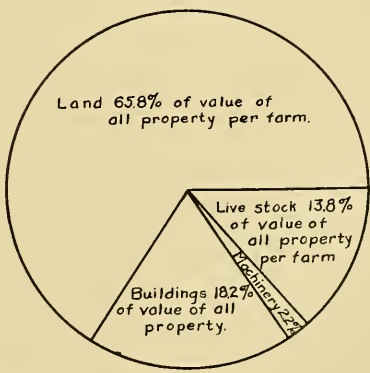
Fig. 1



Percent of average West Virginia farms used for different crops.

Average Farm Investment in West Virginia.

Fig. 2



| | |
|---------------------------------|--------------|
| Value of all property, per farm | \$3255 |
| Implements and machinery | \$73-22% |
| Live stock | \$448-13.8% |
| Land | \$2142-65.8% |
| Buildings | \$592-18.2% |

PASTURES.

Almost forty per cent. of the improved farm land is included in pastures. This is a larger area than is devoted to any other crop. No doubt, a part of the forty-five per cent. of unimproved land furnishes some feed for live stock. It is probable that the value of the pastures is larger than that of any other single crop, but there has been no attempt to estimate this value directly.

Crop Yields and Value, 1870-1913.

| | 1913* | 1910 | 1900 | 1890 | 1880 | 1870 |
|-----------------|--------------|--------------|------------|------------|------------|-----------|
| Total Bushels | | | | | | |
| Corn | 22,692,000 | 17,119,097 | 16,610,730 | 13,730,506 | 14,090,609 | 8,197,865 |
| Total Value | | | | | | |
| Corn Crop | \$18,154,000 | \$11,907,261 | | | | |
| Yield per | | | | | | |
| Acre, bu... | 31 | 26 | 23 | 23 | 25 | |
| Acres per | | | | | | |
| Farm | 7 | 7 | 8 | 8 | 9 | |
| Total Bushels | | | | | | |
| Wheat. ... | 3,055,000 | 2,575,996 | 4,326,150 | 3,364,191 | 4,001,711 | 2,483,543 |
| Value Wheat | 3,055,000 | 2,697,141 | | | | |
| Yield per | | | | | | |
| Acre, bu... | 13 | 12 | 10 | 11 | 10 | |
| Acres per | | | | | | |
| Farm | 2.5 | 2 | 5 | 5 | 6 | |
| Total Bushels | | | | | | |
| Oats | 2,760,000 | 1,728,806 | 1,833,840 | 2,946,653 | 1,908,505 | 2,414,749 |
| Value Oats | | | | | | |
| Crop | \$1,408,000 | \$912,388 | | | | |
| Yield per | | | | | | |
| Acre, bu... | 24 | 17 | 18 | 16 | 18 | |
| Acres per | | | | | | |
| Farm | 1 | 1 | 1 | 2 | 2 | |
| Total Tons | | | | | | |
| Hay | 925,000 | 639,104 | 541,084 | 550,645 | 232,338 | 224,164 |
| Total Value | | | | | | |
| Hay | \$13,782,000 | \$7,492,747 | | | | |
| Yield per | | | | | | |
| Acre, lbs.. | 2,500 | 1,800 | 1,800 | 1,800 | 1,400 | |
| Acres per | | | | | | |
| Farm | 7 | 7 | 6 | 8 | 6 | |
| Total Bushels | | | | | | |
| Potatoes .. | 3,984,000 | 4,077,066 | 2,245,821 | 1,987,367 | 1,398,539 | 1,053,507 |
| Value Potatoes | | | | | | |
| to Crop .. | \$3,586,000 | \$2,279,000 | | | | |
| Yield per | | | | | | |
| Acre, bu... | 82 | 98 | 75 | 72 | | |
| Total Pounds | | | | | | |
| Tobacco .. | 10,200,000 | 14,536,400 | 3,087,140 | 2,602,021 | 2,296,146 | 2,046,452 |
| Value Tobacco | | | | | | |
| to Crop... | \$1,224,000 | \$1,923,180 | | | | |
| Yield per | | | | | | |
| Acre, lbs.. | 680 | 800 | 600 | 550 | 570 | |
| Total Bushels | | | | | | |
| Buckwheat. | 798,000 | 533,870 | 267,257 | 120,469 | 285,298 | 82,916 |
| Value Buckwheat | \$622,000 | \$351,000 | | | | |
| Yield per | | | | | | |
| Acre, bu... | 21 | 16 | 12 | 9 | 9 | |

*Estimate by U. S. Department of Agriculture.

LIVE STOCK.

The total increase in live stock values has been great during this period but the number of animals per farm in each class has decreased.

The total number of animals in all classes of live stock increased each decade until that of 1900-1910, during which period dairy cows and poultry were the only classes increasing.

The estimates by the U. S. Department of Agriculture for 1914 indicate that horses and hogs are more numerous than in 1910.

The high prices for cattle make the total valuation greater in 1910 in spite of the decrease in numbers.

Live Stock Production and Values, 1870-1914.

| | 1914* | 1910 | 1900 | 1890 | 1880 | 1870 |
|----------------------------|--------------|--------------|--------------|-----------|-----------|---------|
| Number Horses and Mules... | 202,000 | 191,708 | 196,542 | 161,943 | 132,369 | 92,518 |
| Value Horses and Mules... | \$24,752,000 | \$20,923,141 | \$11,101,684 | | | |
| Number per Farm | 2.1 | 2. | 2.1 | 2.2 | 2.1 | 2.3 |
| Number Cattle | 563,000 | 620,288 | 639,782 | 566,066 | 458,444 | 301,680 |
| Value Cattle... | \$23,483,000 | \$15,860,764 | \$14,058,427 | | | |
| Number per Farm | 5.8 | 6.3 | 7. | 8. | 7.4 | 8. |
| Number Sheep | 788,000 | 910,360 | 968,843 | 785,063 | 674,769 | 552,327 |
| Value Sheep... | \$3,388,000 | \$3,400,901 | \$2,644,556 | | | |
| Number per Farm | 8 | 9 | 10 | 11 | 11 | 14 |
| Number Hogs. | 367,000 | 328,188 | 442,844 | 411,018 | 510,613 | 268,031 |
| Value Hogs... | \$3,707,000 | \$2,087,392 | \$1,389,808 | | | |
| Number per Farm | 3.8 | 3 | 5 | 6 | 8 | 7 |
| Number Poultry | | 3,310,155 | 3,053,077 | 3,197,477 | 1,606,201 | |
| Value Poultry | | \$1,628,700 | \$964,000 | | | |
| Number per Farm | | 34 | 32 | 42 | 25 | |
| Number Dairy Cows | | 239,539 | 205,601 | 188,492 | 156,956 | 104,434 |
| Value Dairy Products ... | | \$5,000,138 | \$5,088,143 | | | |

*Estimate by U. S. Department of Agriculture.

MOVEMENT OF CROPS FROM COUNTIES IN WHICH THEY ARE PRODUCED.

Practically all the cereals are used on the farms on which they are produced as is shown by the following:

Per Cent. of Crops Moved from Counties in Which They are Produced.

| | W. Va. | U. S. |
|-------------|--------|-------|
| Corn | 5 | 21.9 |
| Oats | 3 | 58.1 |
| Wheat | 15 | 29.6 |

PER CAPITA PRODUCTION AND CONSUMPTION.

One measure of production is on a per capita basis. It is not always desirable to produce all that we consume when good transportation will deliver products to us cheaper than we can grow them, but it is well to note the changes that are going on with reference to certain kinds of food (Fig 4.)

West Virginia produces a little more than one-half the corn needed for average consumption, one-third the wheat, and three-fourths of the potatoes.

No direct statement is made concerning the total weight of various kinds of live stock sold and slaughtered. Knowing the average farm prices per pound and the total value, the production in pounds is easily obtained. The per capita production from these figures is as follows:

| | Per Capita Production in W. Va., 1909 | Per Capita Production in U. S., 1909* |
|--------------|--|--|
| Beef | 90 pounds | 80 pounds |
| Pork | 38 pounds | 77 pounds |
| Veal | 5 pounds | 7 pounds |
| Mutton | 18 pounds | 6 pounds |

*U. S. Department of Agriculture Farmer's Bulletin 575.

From this data it would appear that the state is producing more than enough beef and mutton but only about one-half the pork needed at home.

Crop Production and Consumption per Capita in W. Va. and U. S.

Fig. 3

PER CAPITA CONSUMPTION AND PRODUCTION

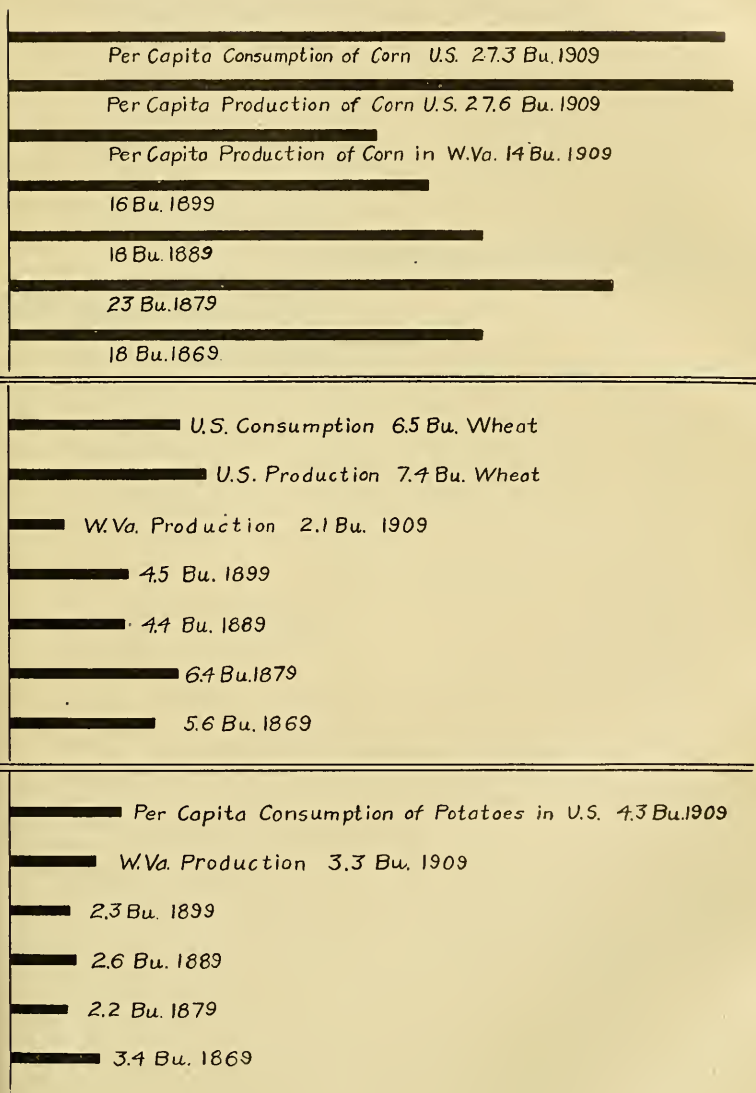
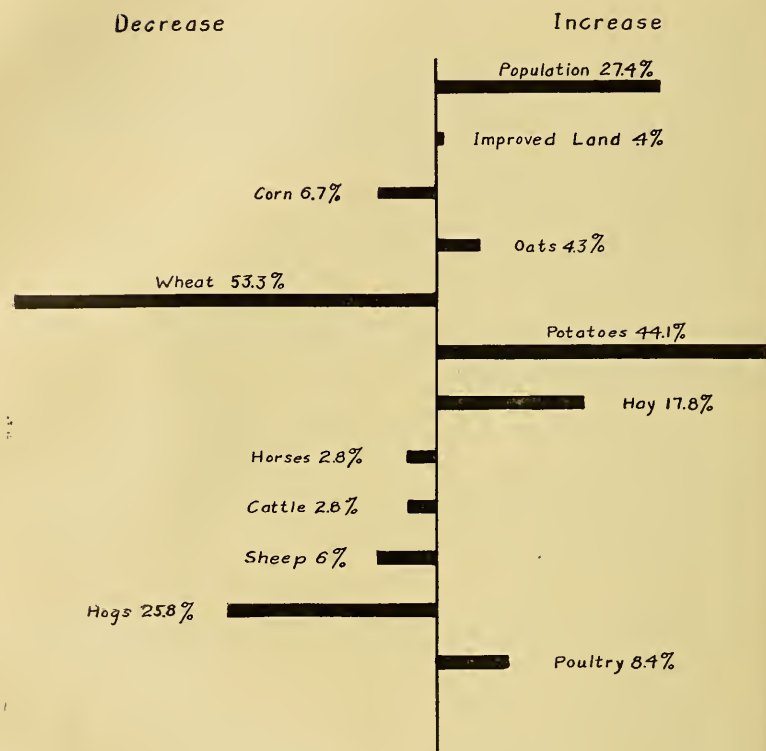


Fig. 4

VARIATION IN PRODUCTION 1900-1910



THE FARMER'S INCOME.

Many attempts have been made to fairly estimate the incomes of farmers. This is of more interest now that so many of the young men leave the farm hoping for larger returns in the city. City dwellers, on the other hand, generally over-emphasize the fact that much of the food consumed in the country is produced at home.

The Office of Farm Management of the U. S. Department of Agriculture has suggested a method of using the census reports as a basis for finding the average income of each farm family in a given section. The following statement gives this information about West Virginia.

In this table the estimates for maintenance of buildings and machinery, taxes, and miscellaneous expenses are based on averages from accurate data taken from surveys and records.

Income and Expenses on an Average West Virginia Farm.

| | |
|---|-------------|
| Average Size of Farm | 103.7 Acres |
| Improved Land per Farm..... | 57.1 Acres |
| Average Value All Farm Property..... | \$3255 |
| Average Value Buildings per Farm..... | \$593 |
| Average Value Implements and Machinery..... | \$73 |
| Average Value Live Stock Including Poultry... | \$448 |

Value of Products per Farm.

| | |
|----------------------------------|----------|
| Dairy | \$ 52.00 |
| Wool | 9.00 |
| Poultry and Products..... | 60.00 |
| Honey | 2.00 |
| Live Stock Sold..... | 146.00 |
| Live Stock Slaughtered..... | 44.00 |
| Net Value of Crops Produced..... | 197.00 |
| | <hr/> |
| | \$510.00 |

Expenses per Farm.

| | |
|--|----------|
| Labor | \$ 42.00 |
| Feed | 20.00 |
| Fertilizer | 5.00 |
| Maintenance of Buildings (5% of value)..... | 30.00 |
| Maintenance of Machinery (20% of value).... | 15.00 |
| Taxes (.8% total value of property)..... | 32.00 |
| Miscellaneous Expenses (15% of all other expenses) | 22.00 |
| | <hr/> |
| | \$166.00 |

| | |
|-----------------------------------|----------|
| Total Income | \$510.00 |
| Total Expense | 166.00 |
| | <hr/> |
| Net Farm Income..... | \$344.00 |
| Interest on Investment at 5%..... | 163.00 |
| | <hr/> |
| Labor Income for Family..... | \$181.00 |

It must be clearly understood that the net farm income of \$344 does not mean that the average farmer sold that much but that it represents his production above the actual cash expenses. Some few products are included, such as milk and cream used on the table, and it is possible that the total value of products used in the home is larger than given in the census reports.

The labor income for family, is the amount remaining after 5 per cent. interest on the capital invested has been deducted.

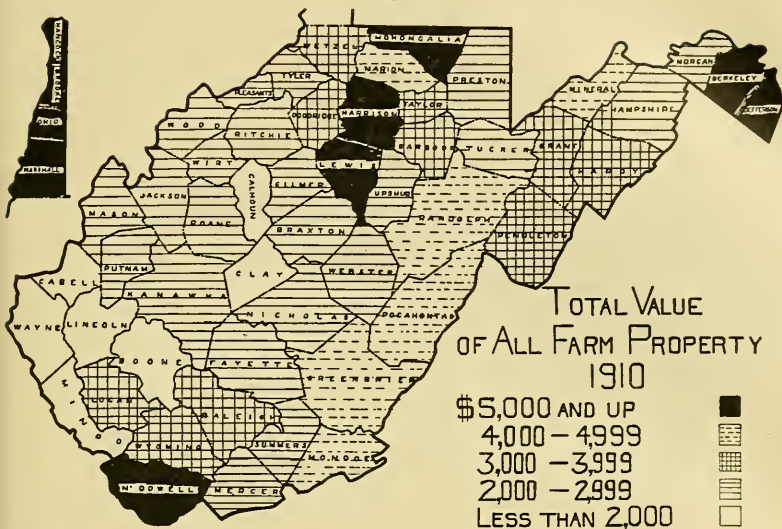
A comparison of the average in West Virginia with that of the United States may be of interest.

| | U. S. | W. Va. |
|------------------------------|----------|----------|
| Total Gross Income..... | \$980.00 | \$510.00 |
| Total Expense | 340.00 | 166.00 |
| Net Farm Income..... | 640.00 | 344.00 |
| Labor Income for Family..... | 318.00 | 181.00 |

MAPS.

The following pages are devoted to maps showing the centers of production, yields per acre of the various crops and other general information.

Fig. 5

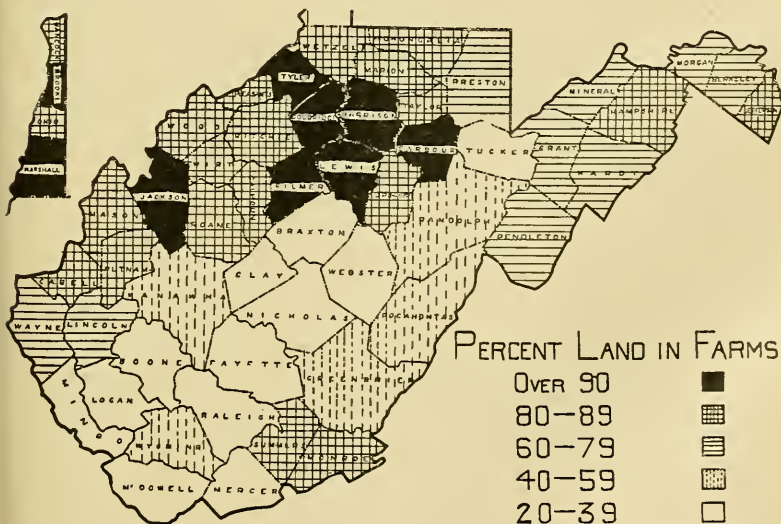


VALUE OF ALL FARM PROPERTY AND LAND
IN FARMS.

Ten counties have an average value of more than five thousand dollars per farm for all farm property.

Nine counties have more than ninety per cent. of the land area in farms.

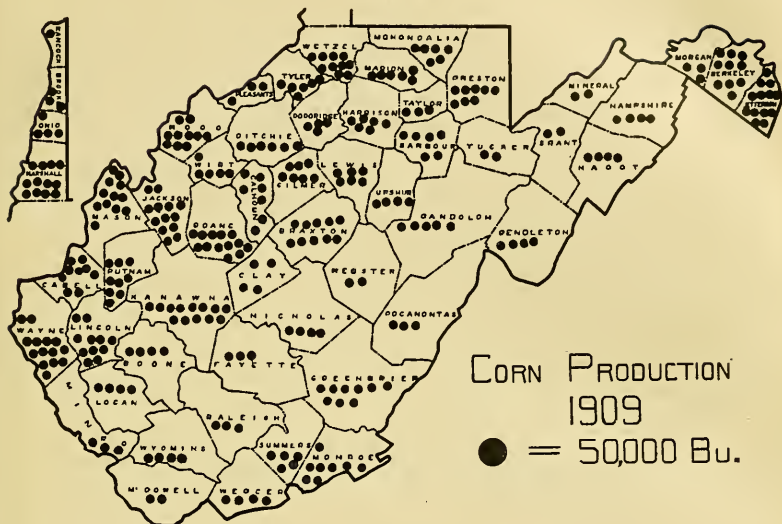
Fig. 6



[illegible]

The percentage of tenants is high in the southern part of the state because large areas are held by timber and land companies that lease the farm lands in these holdings.

[illegible]



CORN PRODUCTION.

The areas devoted most largely to this cereal are in the Ohio Valley and the valleys in the eastern part of the state.

Fig. 10

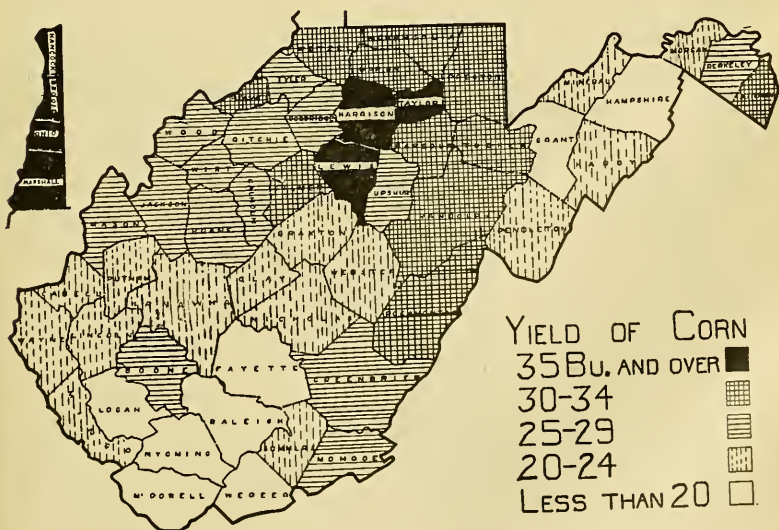
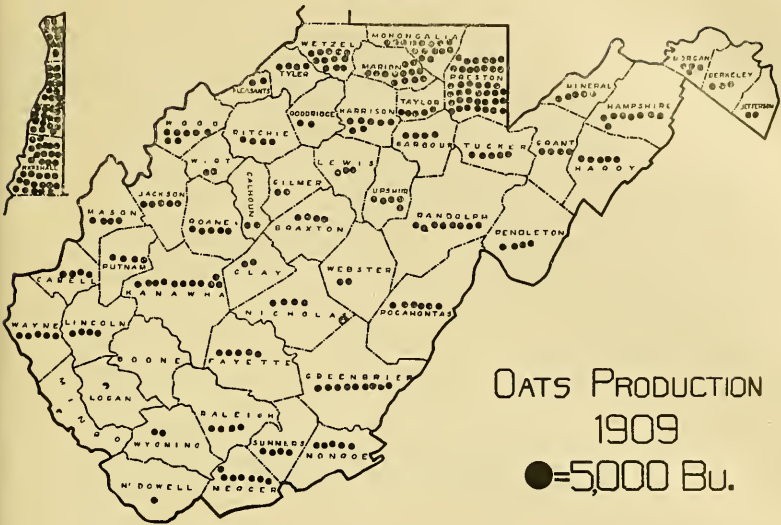


Fig. 13



OATS PRODUCTION.

The oats crop is of minor importance in most parts of the state. Preston county leads in total production.

Fig. 14

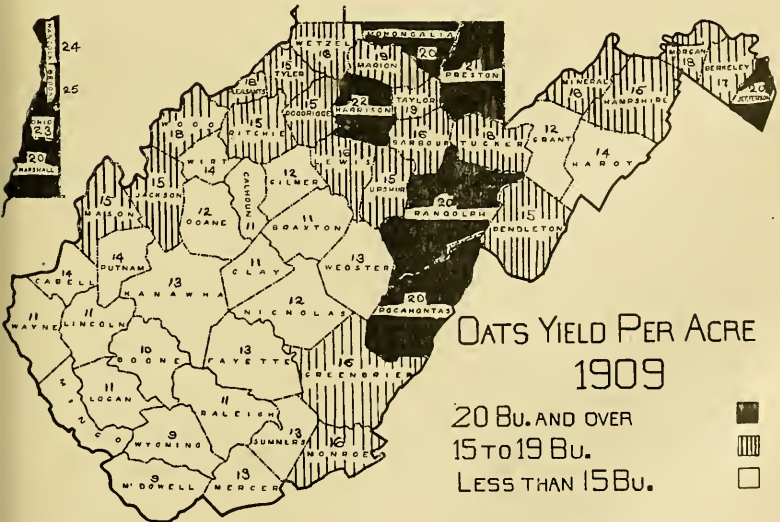
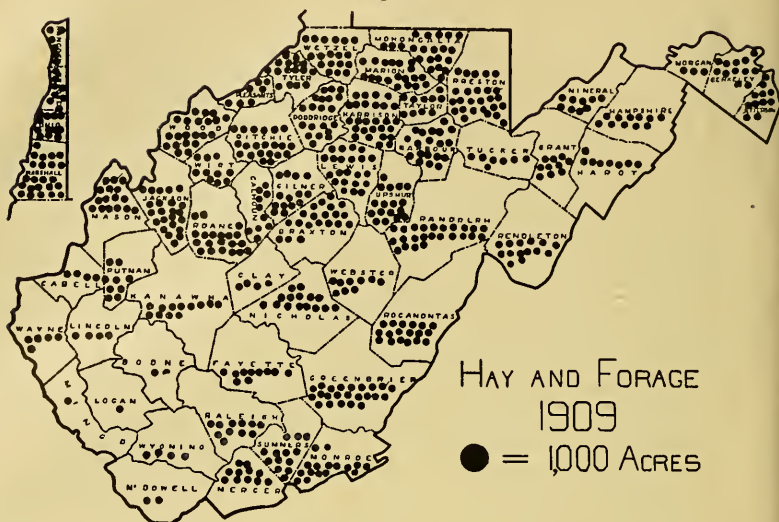


Fig. 15

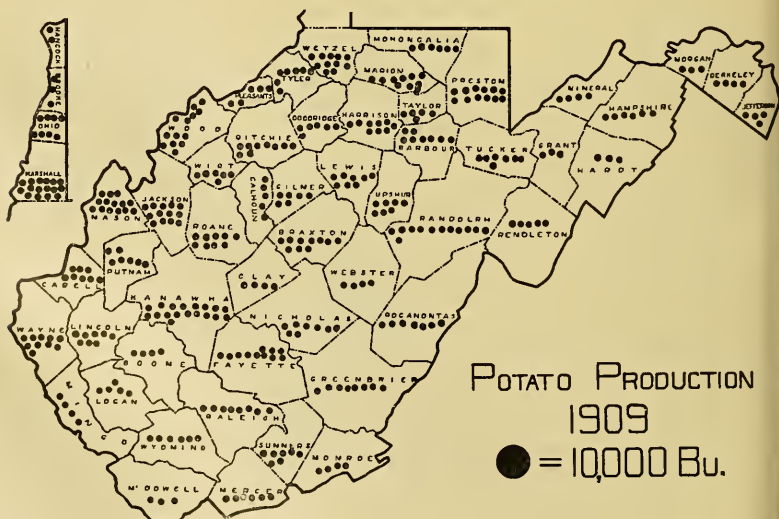


HAY AND POTATO PRODUCTION .

Note that many counties produce very little hay or forage.

Potatoes are grown almost exclusively for home consumption as is shown by the fact that there are no sections where the production is large.

Fig. 16



[illegible]

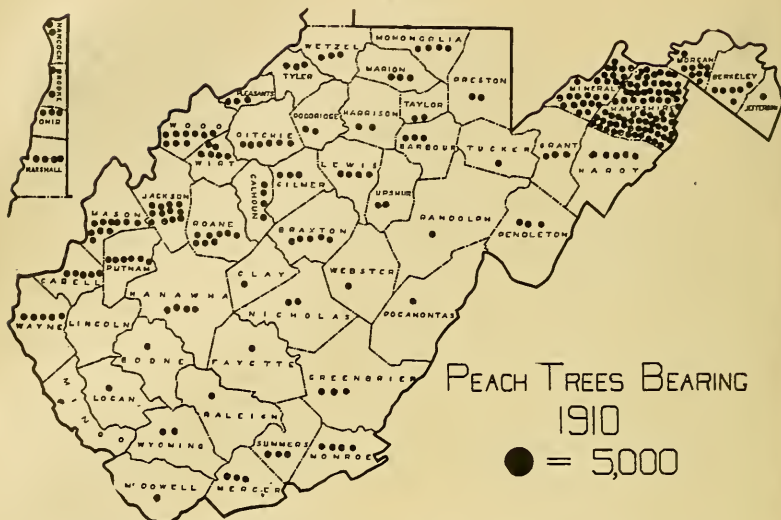
Fruit growing is concentrated in two principal areas but the total production of the remaining sections is large.

Note that there is no place where vegetable production is large.

VEGETABLE PRODUCTION
1909

● = \$20,000

Fig. 19



THE PEACH SECTIONS OF WEST VIRGINIA.

The peach industry is localized in the eastern part of the state. Several counties are planting quite extensively.

The counties along the Ohio River are not planting enough to keep up present production.

Fig. 20

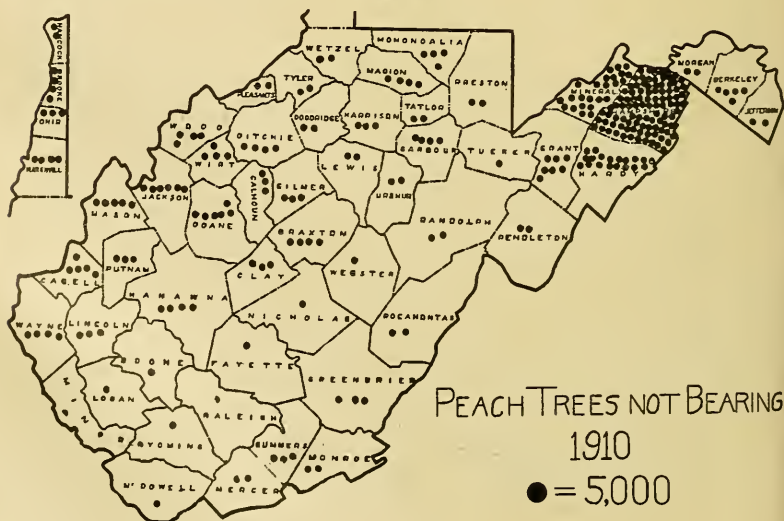
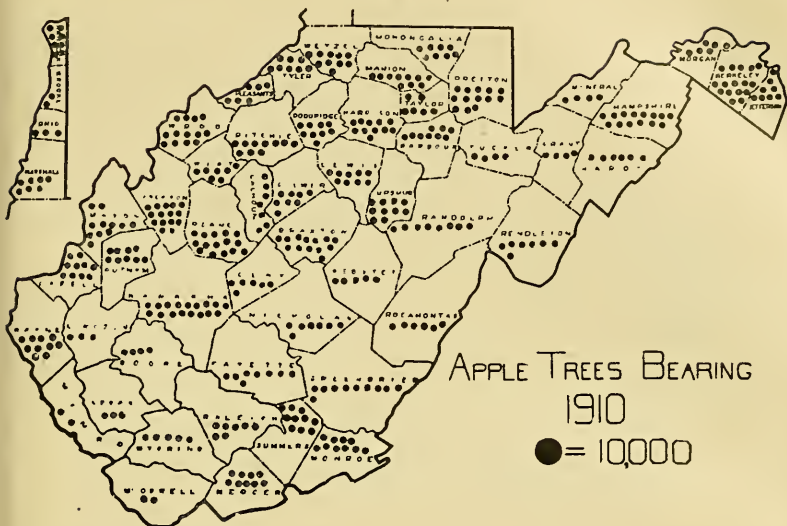


Fig. 21



THE APPLE SECTIONS OF WEST VIRGINIA.

Old orchards are scattered over the state rather uniformly but the recent plantings are most numerous in the eastern part.

Fig. 22

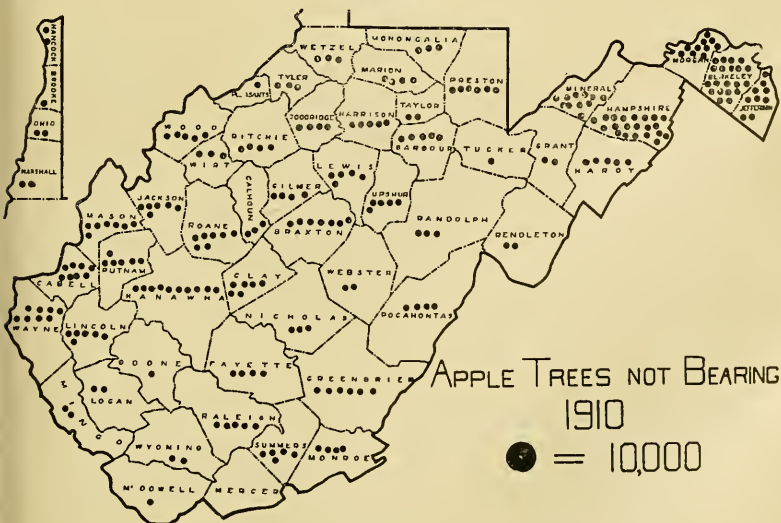
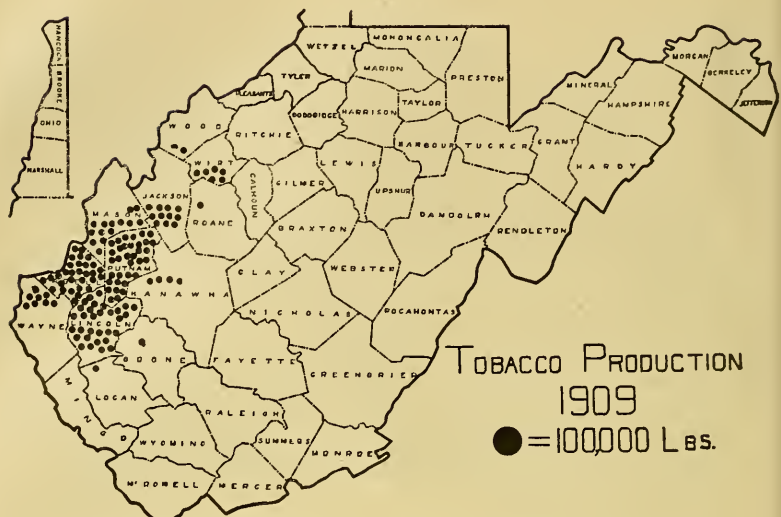


Fig. 23



TOBACCO AND BUCKWHEAT PRODUCTION.

Tobacco is grown in only a few counties. Soil and climatic conditions limit the area.

Buckwheat production is restricted to the higher altitudes.

Fig. 24

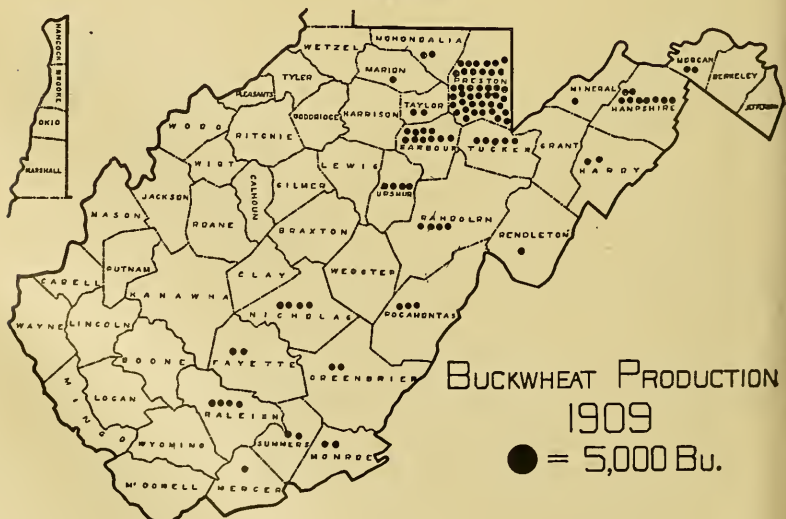
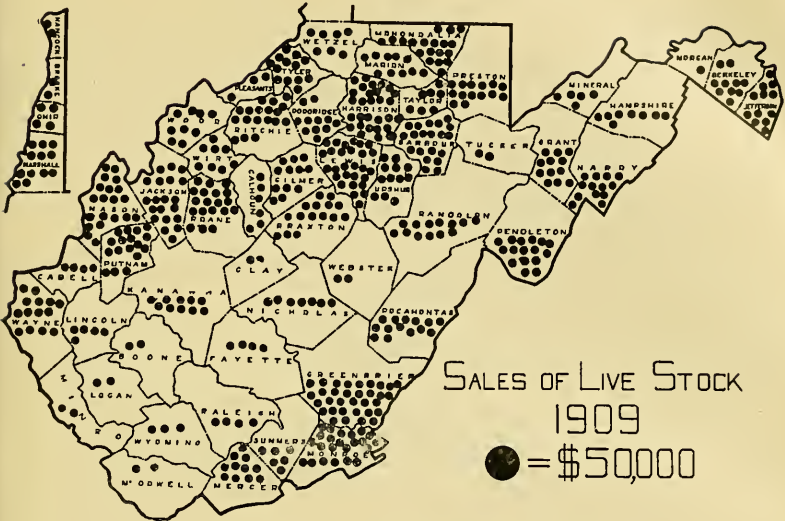


Fig. 25



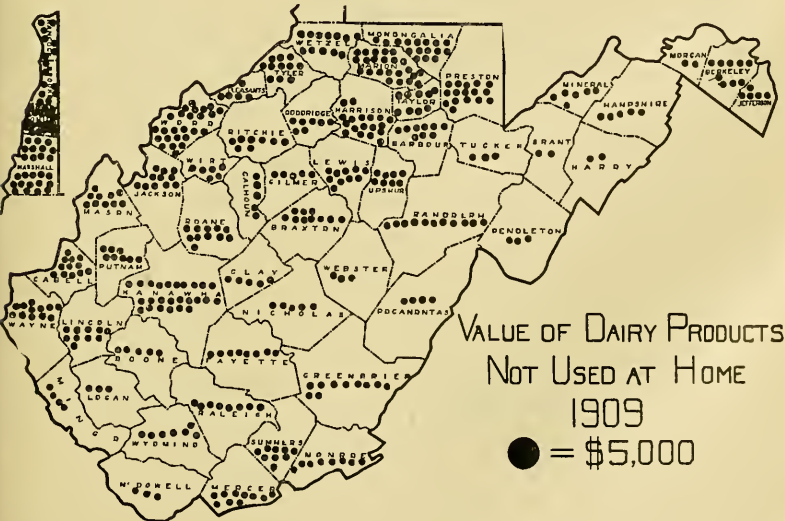
SALES OF LIVE STOCK
1909
● = \$50,000

LIVE STOCK AND DAIRY SALES.

The live stock industry is best developed in the eastern and western parts of the state. The central division has a smaller production.

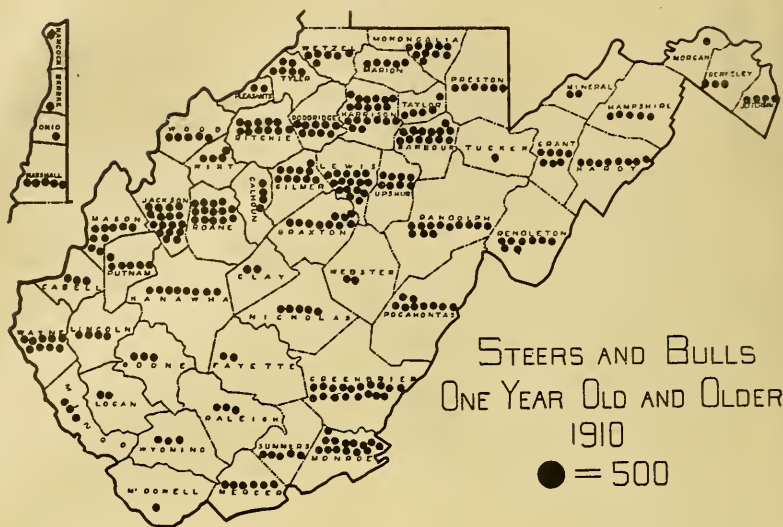
Dairying is carried on near the towns and cities as is shown by the larger sales in counties with towns of some size.

Fig. 26



VALUE OF DAIRY PRODUCTS
NOT USED AT HOME
1909
● = \$5,000

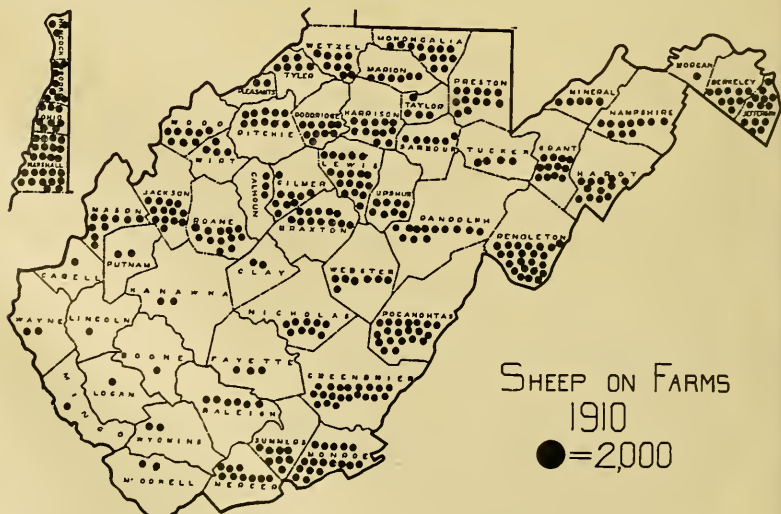
Fig. 27



CATTLE AND SHEEP PRODUCTION.

The areas devoted to these industries are almost identical except in the Northern Pan Handle where sheep are largely grown.

Fig. 28



[illegible]

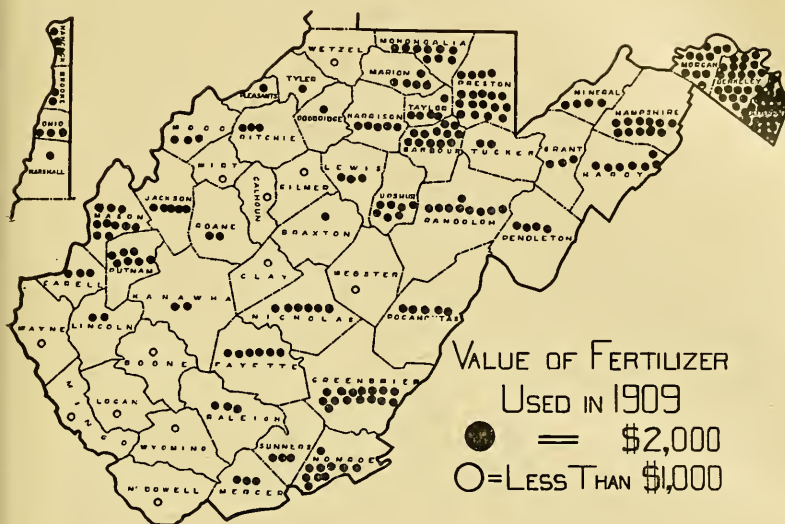
In eight counties the average number of mature work horses per farm is less than one.

There is no section devoted to hog production to any great extent, but Jefferson and Berkeley counties have a greater concentration in this industry.

SWINE ON FARMS
1910
● = 1,000

SWINE ON FARMS
1910
● = 1,000

Fig. 33



FARM INCOME AND EXPENSES BY COUNTIES IN WEST VIRGINIA.

The accompanying tables give the income of the average farm in each county. Care must be used in interpreting these figures, but they serve to give some idea of the general agricultural conditions in different parts of the state.

No doubt some of the counties had partial failures in 1909 while others were favored with good yields.

It will be noticed that many counties with a good net income have a small labor income for the family, because the interest on the investment is large.

Counties having a large investment in live stock have, as a rule, a larger income per farm than the ones with a small amount of live stock.

Some counties, in which the average farm has small sales, have a fair net income because of small expenses.

Two counties fail to produce enough to pay five per cent. interest on the investment, which leaves nothing for labor.

Estimates are supposed to include food grown on the farm but it is probable that these are low.

Income and Expenses per Farm in West Virginia,

| | Number of Farms | Acres per Farm | Improved Acres | Total Farm Investment | Value Buildings | Value Machinery |
|------------------|-----------------|----------------|----------------|-----------------------|-----------------|-----------------|
| Barbour | 2026 | 99 | 66 | 3273 | 572 | 79 |
| Berkeley | 1288 | 123.6 | 90.8 | 5841 | 1268 | 180 |
| Boone | 1172 | 75.8 | 26.9 | 1931 | 290 | 25 |
| Braxton | 2870 | 92.4 | 50.8 | 2393 | 400 | 43 |
| Brooke | 468 | 112.1 | 79. | 7426 | 1634 | 208 |
| Cabell | 2289 | 65.3 | 36.8 | 1734 | 381 | 42 |
| Calhoun | 1749 | 85.2 | 41.4 | 1603 | 265 | 37 |
| Clay | 1099 | 75.6 | 29.1 | 1425 | 280 | 37 |
| Doddridge | 1755 | 112.8 | 73.6 | 3767 | 588 | 57 |
| Fayette | 1672 | 65.9 | 32.1 | 2618 | 644 | 47 |
| Gilmer | 1663 | 116.5 | 69.6 | 2996 | 416 | 63 |
| Grant | 928 | 224.3 | 103.4 | 3771 | 475 | 83 |
| Greenbrier | 2551 | 129.6 | 59.7 | 4038 | 723 | 89 |
| Hampshire | 1699 | 204.3 | 83.2 | 2896 | 500 | 107 |
| Hancock | 452 | 102.4 | 76.3 | 5979 | 1752 | 168 |
| Hardy | 1106 | 225. | 85.5 | 3615 | 578 | 94 |
| Harrison | 2286 | 108.4 | 91.8 | 6612 | 1058 | 99 |
| Jackson | 3145 | 90.5 | 65.1 | 2497 | 494 | 66 |
| Jefferson | 836 | 144.5 | 125.3 | 11898 | 2427 | 333 |
| Kanawha | 3807 | 66.3 | 35.3 | 2350 | 465 | 47 |
| Lewis | 1815 | 134. | 100.2 | 5621 | 793 | 90 |
| Lincoln | 2936 | 65.3 | 30.3 | 1337 | 273 | 31 |
| Logan | 1110 | 89.6 | 21.7 | 3453 | 328 | 24 |
| McDowell | 880 | 146.3 | 19.9 | 5638 | 474 | 28 |
| Marion | 2333 | 74.4 | 56.5 | 4290 | 845 | 69 |
| Marshall | 1957 | 96.9 | 70.1 | 5325 | 1134 | 138 |
| Mason | 2695 | 94.3 | 66.4 | 2574 | 507 | 75 |
| Mercer | 1956 | 94.6 | 45.9 | 2563 | 465 | 46 |
| Mineral | 728 | 2156 | 93.8 | 4072 | 757 | 106 |
| Mingo | 1059 | 88.4 | 21.9 | 1957 | 288 | 24 |
| Monongalia | 2087 | 90. | 69.1 | 5609 | 836 | 101 |
| Monroe | 1918 | 125.8 | 65.7 | 4243 | 674 | 110 |
| Morgan | 866 | 124.3 | 55. | 2263 | 579 | 90 |
| Nicholas | 1670 | 94.2 | 46.3 | 2396 | 405 | 50 |
| Ohio | 706 | 84.3 | 66.6 | 8320 | 2205 | 208 |
| Pendleton | 1321 | 236.7 | 66.7 | 3701 | 396 | 85 |
| Pleasants | 895 | 82.2 | 55.8 | 2534 | 567 | 58 |
| Pocahontas | 1198 | 195.2 | 69.3 | 4171 | 724 | 104 |
| Preston | 2837 | 104.1 | 58.1 | 2965 | 655 | 145 |
| Putnam | 2279 | 81.5 | 48.7 | 2136 | 430 | 56 |
| Raleigh | 1598 | 87.1 | 40.8 | 3379 | 627 | 51 |
| Randolph | 1856 | 155.8 | 61.8 | 4012 | 698 | 84 |
| Ritchie | 2255 | 106.9 | 68.3 | 2871 | 531 | 52 |
| Roane | 2887 | 99.6 | 67.1 | 2735 | 516 | 60 |
| Summers | 2012 | 95.6 | 41.9 | 2184 | 431 | 58 |
| Taylor | 1159 | 84.3 | 66.7 | 3503 | 746 | 81 |
| Tucker | 828 | 112.7 | 48.4 | 2229 | 428 | 87 |
| Tyler | 1764 | 89.0 | 64.7 | 2826 | 545 | 59 |
| Upshur | 2200 | 87.7 | 56.6 | 2895 | 518 | 61 |
| Wayne | 3188 | 75.5 | 40.6 | 1231 | 258 | 27 |
| Webster | 1084 | 100.6 | 35.4 | 2005 | 410 | 36 |
| Wetzel | 2133 | 89.3 | 57.3 | 3321 | 608 | 76 |
| Wirt | 1429 | 86.9 | 53.8 | 2016 | 450 | 58 |
| Wood | 2723 | 75.5 | 50.7 | 2869 | 648 | 71 |
| Wyoming | 1462 | 108.5 | 28.5 | 3821 | 311 | 19 |

by Counties, 1909. (Continued on next page.)

| Value Live Stock | Value Dairy Products | Value Wool | Value Eggs and Poultry | Value Honey | Value Cereals | Value Hay | Value Vegetables | Value Fruit and Nuts | Value Other Crops |
|------------------|----------------------|------------|------------------------|-------------|---------------|-----------|------------------|----------------------|-------------------|
| 495 | 42 | 4 | 56 | 2 | 150 | 89 | 59 | 41 | 31 |
| 930 | 68 | 10 | 102 | 4 | 573 | 112 | 55 | 160 | 51 |
| 240 | 41 | 1 | 33 | 4 | 131 | 15 | 78 | 36 | 57 |
| 380 | 34 | 6 | 42 | 4 | 142 | 55 | 68 | 33 | 42 |
| 695 | 164 | 62 | 110 | 2 | 295 | 170 | 92 | 54 | 26 |
| 265 | 54 | 1 | 49 | 2 | 128 | 22 | 58 | 29 | 208 |
| 310 | 28 | 2 | 40 | 3 | 149 | 42 | 59 | 18 | 36 |
| 275 | 41 | 2 | 28 | 2 | 134 | 29 | 84 | 54 | 45 |
| 490 | 40 | 8 | 50 | 3 | 102 | 112 | 65 | 28 | 25 |
| 295 | 60 | 3 | 48 | 3 | 101 | 70 | 122 | 50 | 27 |
| 500 | 31 | 7 | 45 | 4 | 178 | 89 | 275 | 35 | 53 |
| 720 | 22 | 21 | 57 | 2 | 162 | 93 | 47 | 18 | 43 |
| 590 | 38 | 11 | 60 | 1 | 188 | 98 | 55 | 21 | 44 |
| 485 | 27 | 8 | 70 | 1 | 178 | 68 | 43 | 85 | 68 |
| 525 | 158 | 26 | 82 | | 208 | 143 | 105 | 181 | 108 |
| 660 | 16 | 14 | 72 | 1 | 285 | 85 | 52 | 14 | 58 |
| 705 | 81 | 7 | 76 | 2 | 110 | 145 | 79 | 48 | 40 |
| 485 | 36 | 7 | 84 | 2 | 168 | 67 | 62 | 25 | 62 |
| 1420 | 63 | 24 | 126 | 2 | 1124 | 168 | 74 | 113 | 30 |
| 285 | 65 | 1 | 60 | 2 | 134 | 42 | 103 | 38 | 51 |
| 750 | 43 | 13 | 62 | 3 | 130 | 140 | 83 | 49 | 19 |
| 230 | 34 | 1 | 34 | 1 | 152 | 21 | 57 | 27 | 180 |
| 230 | 28 | 1 | 25 | 4 | 131 | 14 | 90 | 41 | 59 |
| 240 | 38 | 2 | 32 | 5 | 107 | 23 | 109 | 21 | 112 |
| 405 | 98 | 5 | 63 | 2 | 121 | 93 | 82 | 37 | 29 |
| 620 | 135 | 43 | 80 | 2 | 252 | 139 | 106 | 25 | 23 |
| 435 | 37 | 4 | 67 | 1 | 180 | 62 | 64 | 20 | 104 |
| 380 | 52 | 5 | 58 | 1 | 134 | 60 | 64 | 17 | 54 |
| 580 | 85 | 12 | 63 | 3 | 160 | 168 | 77 | 55 | 54 |
| 205 | 35 | 1 | 29 | 4 | 125 | 18 | 95 | 31 | 40 |
| 500 | 73 | 15 | 65 | 2 | 148 | 130 | 64 | 39 | 36 |
| 680 | 43 | 11 | 69 | 1 | 232 | 81 | 47 | 18 | 77 |
| 305 | 22 | 1 | 48 | 1 | 210 | 37 | 101 | 86 | 57 |
| 375 | 31 | 6 | 38 | 4 | 146 | 53 | 67 | 32 | 56 |
| 820 | 300 | 42 | 98 | | 276 | 226 | 191 | 54 | 167 |
| 715 | 18 | 26 | 56 | 1 | 186 | 91 | 43 | 15 | 80 |
| 350 | 54 | 4 | 55 | 2 | 139 | 76 | 74 | 23 | 23 |
| 740 | 34 | 29 | 48 | 4 | 143 | 152 | 88 | 21 | 130 |
| 430 | 55 | 7 | 65 | 2 | 186 | 100 | 56 | 15 | 67 |
| 370 | 37 | 2 | 58 | 2 | 163 | 45 | 59 | 27 | 242 |
| 340 | 51 | 4 | 65 | 4 | 118 | 70 | 83 | 70 | 110 |
| 550 | 58 | 10 | 54 | 3 | 118 | 144 | 84 | 20 | 45 |
| 450 | 37 | 6 | 53 | 2 | 112 | 83 | 61 | 18 | 35 |
| 500 | 41 | 5 | 67 | 4 | 203 | 86 | 73 | 36 | 53 |
| 350 | 45 | 5 | 45 | 1 | 129 | 56 | 75 | 19 | 72 |
| 440 | 74 | 5 | 60 | 2 | 116 | 101 | 84 | 38 | 29 |
| 400 | 37 | 8 | 46 | 2 | 129 | 87 | 82 | 17 | 51 |
| 390 | 65 | 7 | 60 | 2 | 138 | 94 | 66 | 22 | 102 |
| 385 | 35 | 5 | 40 | 1 | 97 | 70 | 55 | 21 | 29 |
| 265 | 36 | 1 | 40 | 2 | 130 | 16 | 63 | 23 | 116 |
| 335 | 28 | 8 | 25 | 4 | 105 | 71 | 57 | 23 | 100 |
| 440 | 58 | 11 | 63 | 3 | 174 | 91 | 60 | 21 | 22 |
| 370 | 44 | 5 | 66 | 3 | 124 | 65 | 62 | 24 | 68 |
| 370 | 88 | 5 | 85 | 2 | 124 | 79 | 76 | 27 | 33 |
| 255 | 45 | 3 | 33 | 3 | 140 | 31 | 89 | 60 | 54 |

Income and Expenses per Farm in West

| | Live Stock Sales | Value Live Stock Slaughtered | Net Value Crops | Gross Farm Income | Per cent. of Income from Live Stock and Products | Labor Expense |
|------------------|------------------|------------------------------|-----------------|-------------------|--|---------------|
| Barbour | 239 | 51 | 176 | 570 | 68 | 38 |
| Berkeley | 184 | 38 | 602 | 1058 | 42 | 143 |
| Boone | 54 | 40 | 177 | 350 | 45 | 16 |
| Braxton | 115 | 38 | 162 | 401 | 59 | 36 |
| Brooke | 117 | 48 | 275 | 778 | 64 | 94 |
| Cabell | 50 | 23 | 317 | 496 | 35 | 30 |
| Calhoun | 83 | 31 | 138 | 325 | 56 | 26 |
| Clay | 71 | 36 | 200 | 386 | 46 | 21 |
| Doddridge | 151 | 41 | 130 | 423 | 70 | 43 |
| Fayette | 61 | 45 | 210 | 430 | 50 | 21 |
| Gilmer | 185 | 45 | 233 | 550 | 57 | 56 |
| Grant | 325 | 59 | 161 | 647 | 75 | 51 |
| Greenbrier | 314 | 40 | 174 | 638 | 72 | 45 |
| Hampshire | 112 | 53 | 263 | 534 | 50 | 65 |
| Hancock | 108 | 62 | 408 | 844 | 51 | 119 |
| Hardy | 282 | 66 | 217 | 668 | 67 | 53 |
| Harrison | 325 | 57 | 185 | 733 | 74 | 71 |
| Jackson | 152 | 37 | 200 | 518 | 61 | 27 |
| Jefferson | 378 | 96 | 984 | 1673 | 41 | 283 |
| Kanawha | 62 | 31 | 211 | 432 | 51 | 31 |
| Lewis | 372 | 52 | 167 | 712 | 76 | 62 |
| Lincoln | 43 | 30 | 279 | 422 | 33 | 21 |
| Logan | 40 | 30 | 107 | 235 | 53 | 17 |
| McDowell | 46 | 27 | 254 | 404 | 36 | 22 |
| Marion | 110 | 55 | 164 | 497 | 66 | 35 |
| Marshall | 149 | 57 | 238 | 704 | 66 | 52 |
| Mason | 148 | 37 | 263 | 557 | 52 | 53 |
| Mercer | 140 | 46 | 158 | 440 | 63 | 29 |
| Mineral | 170 | 45 | 244 | 622 | 60 | 113 |
| Mingo | 63 | 28 | 175 | 335 | 46 | 16 |
| Monongalia | 211 | 67 | 167 | 600 | 73 | 44 |
| Monroe | 305 | 60 | 159 | 648 | 74 | 45 |
| Morgan | 31 | 54 | 195 | 352 | 44 | 54 |
| Nicholas | 118 | 53 | 173 | 423 | 58 | 25 |
| Ohio | 172 | 41 | 539 | 1192 | 55 | 164 |
| Pendleton | 317 | 59 | 145 | 622 | 76 | 36 |
| Pleasants | 88 | 43 | 151 | 397 | 61 | 36 |
| Pocahontas | 284 | 79 | 275 | 753 | 63 | 53 |
| Preston | 122 | 59 | 211 | 521 | 59 | 30 |
| Putnam | 78 | 33 | 370 | 580 | 36 | 34 |
| Raleigh | 75 | 40 | 276 | 515 | 45 | 20 |
| Randolph | 180 | 58 | 169 | 532 | 70 | 54 |
| Ritchie | 203 | 40 | 142 | 483 | 70 | 37 |
| Roane | 166 | 43 | 193 | 519 | 62 | 36 |
| Summers | 86 | 34 | 192 | 407 | 52 | 21 |
| Taylor | 152 | 49 | 175 | 517 | 65 | 39 |
| Tucker | 80 | 34 | 194 | 401 | 51 | 20 |
| Tyler | 169 | 40 | 215 | 558 | 61 | 32 |
| Upshur | 142 | 36 | 170 | 429 | 60 | 25 |
| Wayne | 114 | 25 | 215 | 433 | 50 | 19 |
| Webster | 54 | 41 | 187 | 347 | 42 | 25 |
| Wetzel | 81 | 45 | 140 | 405 | 65 | 42 |
| Wirt | 140 | 37 | 172 | 467 | 62 | 28 |
| Wood | 82 | 36 | 117 | 475 | 62 | 40 |
| Wyoming | 60 | 32 | 224 | 400 | 43 | 17 |

Virginia, by Counties, 1909. (Concluded.)

| Fertilizer Expense | Feed Expense | Taxes | Repairs | Miscellaneous Expense | Total Expense | Net Income | Interest at 5% | Labor Income for Family |
|-----------------------|--------------|-------|---------|--------------------------|---------------|------------|----------------|----------------------------|
| 9 | 12 | 28 | 43 | 11 | 141 | 429 | 178 | 251 |
| 36 | 19 | 46 | 99 | 21 | 364 | 694 | 292 | 402 |
| | 13 | 15 | 19 | 5 | 68 | 282 | 97 | 185 |
| 1 | 10 | 19 | 29 | 6 | 101 | 300 | 120 | 180 |
| 7 | 44 | 59 | 122 | 27 | 353 | 425 | 371 | 54 |
| 3 | 14 | 14 | 27 | 6 | 94 | 402 | 87 | 315 |
| 1 | 9 | 13 | 20 | 5 | 74 | 251 | 80 | 171 |
| | 14 | 11 | 21 | 4 | 71 | 309 | 71 | 238 |
| 1 | 19 | 30 | 40 | 11 | 144 | 279 | 188 | 91 |
| 7 | 36 | 21 | 41 | 9 | 143 | 287 | 130 | 157 |
| | 10 | 24 | 34 | 9 | 133 | 417 | 150 | 267 |
| 5 | 28 | 30 | 40 | 11 | 165 | 482 | 189 | 293 |
| 12 | 20 | 32 | 54 | 13 | 176 | 462 | 202 | 260 |
| 14 | 21 | 30 | 46 | 12 | 188 | 346 | 145 | 201 |
| 13 | 66 | 48 | 122 | 25 | 393 | 451 | 299 | 152 |
| 12 | 23 | 29 | 48 | 21 | 177 | 491 | 181 | 310 |
| 4 | 56 | 53 | 73 | 19 | 276 | 457 | 330 | 127 |
| 4 | 8 | 20 | 38 | 9 | 260 | 258 | 125 | 133 |
| 62 | 34 | 95 | 188 | 42 | 704 | 969 | 595 | 374 |
| 1 | 21 | 19 | 32 | 8 | 112 | 320 | 117 | 203 |
| 3 | 32 | 45 | 58 | 15 | 215 | 497 | 281 | 216 |
| 1 | 11 | 11 | 20 | 5 | 68 | 354 | 67 | 287 |
| | 6 | 27 | 21 | 7 | 78 | 157 | 173 | —16 |
| 1 | 20 | 45 | 30 | 11 | 129 | 275 | 282 | —7 |
| 5 | 38 | 34 | 56 | 14 | 182 | 315 | 215 | 100 |
| 1 | 29 | 42 | 85 | 21 | 230 | 474 | 266 | 208 |
| 7 | 12 | 21 | 40 | 9 | 142 | 415 | 129 | 286 |
| 3 | 20 | 21 | 32 | 8 | 113 | 327 | 128 | 199 |
| 10 | 49 | 32 | 59 | 14 | 277 | 345 | 203 | 142 |
| | 7 | 16 | 19 | 5 | 63 | 272 | 98 | 174 |
| 8 | 32 | 45 | 62 | 16 | 207 | 393 | 280 | 113 |
| 11 | 11 | 34 | 56 | 14 | 171 | 477 | 212 | 265 |
| 23 | 12 | 18 | 47 | 10 | 164 | 188 | 113 | 75 |
| 8 | 14 | 19 | 30 | 7 | 103 | 320 | 120 | 200 |
| 9 | 127 | 66 | 150 | 32 | 548 | 644 | 416 | 228 |
| 6 | 11 | 30 | 37 | 10 | 130 | 492 | 175 | 317 |
| 2 | 18 | 20 | 40 | 9 | 145 | 252 | 127 | 125 |
| 8 | 30 | 32 | 57 | 13 | 193 | 560 | 208 | 352 |
| 13 | 16 | 24 | 62 | 12 | 157 | 364 | 148 | 216 |
| 6 | 10 | 17 | 32 | 7 | 106 | 474 | 107 | 367 |
| 3 | 22 | 26 | 41 | 10 | 122 | 393 | 169 | 224 |
| 10 | 25 | 32 | 52 | 12 | 185 | 347 | 201 | 146 |
| 2 | 17 | 23 | 37 | 9 | 125 | 358 | 143 | 215 |
| 2 | 12 | 22 | 38 | 9 | 119 | 400 | 137 | 263 |
| 3 | 19 | 17 | 34 | 8 | 102 | 305 | 109 | 196 |
| 8 | 35 | 28 | 53 | 12 | 175 | 342 | 175 | 167 |
| 4 | 19 | 18 | 38 | 8 | 107 | 294 | 111 | 183 |
| 1 | 17 | 23 | 39 | 9 | 121 | 437 | 141 | 296 |
| 6 | 20 | 23 | 38 | 9 | 121 | 308 | 145 | 163 |
| | 8 | 10 | 18 | 4 | 59 | 374 | 62 | 312 |
| 1 | 20 | 16 | 28 | 7 | 97 | 250 | 100 | 150 |
| 1 | 14 | 26 | 45 | 11 | 139 | 266 | 166 | 100 |
| 1 | 10 | 16 | 34 | 8 | 97 | 370 | 101 | 269 |
| 2 | 22 | 23 | 46 | 11 | 144 | 331 | 143 | 188 |
| 1 | 17 | 30 | 20 | 8 | 93 | 307 | 191 | 116 |

SUMMARY.

1. Population is increasing rapidly in towns and cities and slowly in the country. About one half of the rural sections are decreasing in population.

2. The investment in agriculture is much greater now than at any previous time, because of rising prices.

3. Farms are somewhat smaller than ten years ago.

4. Tenancy is not increasing in the state as a whole.

5. Mortgaged farms form a small per cent. of the total number.

6. Many of the staple farm crops are decreasing in total acreage or production.

7. There is a surplus of beef and mutton produced. About one-half the average amount of pork consumed per capita, is grown in the state.

8. Fruit production is difficult to estimate because there are no statistics for successive years.

9. The planting of young orchards is increasing rapidly.

10. The value of the production of the average West Virginia farm is less than that of the average farm in the United States as a whole.

11. Great variation is noticeable in the incomes per farm for the different counties.

12. The census reports show that the greater number of prosperous counties have a large investment in live stock.

